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(54) Title: ANTI-CANCER DNA VACCINE EMPLOYING PLASMIDS ENCODING SIGNAL SEQUENCE, MUTANT ONCO-PROTEIN ANTIGEN, AND HEAT SHOCK PROTEIN

(57) Abstract: Novel nucleic acid vectors comprising sequences encoding (a) an antigen, (b) a signal peptide, and (c) a heat shock protein, are disclosed, as are methods for using such vectors to induce antigen-specific immune responses and to treat tumors.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 48/00; C12N 15/74

US CL : 514/44; 435/320.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/44; 435/320.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Sequence databases, EAST, MEDLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,235,523 (GAJEWCZYK ET AL) 22 MAY 2001, See abstract for example.	1-9, 11, 12, 15, 16, 18-20, 22-24, 26-29, 31-33, 35-37, 39, 40
Y	CHEN, W. ET AL: Modulatory effects of the human heat shock protein 70 on DNA vaccination. See e.g. the last sentence of the abstract.	1-9, 11, 12, 15, 16, 18-20, 22-24, 26-29, 31-33, 35-37, 39, 40
T --- A	US 6,734,173 B1 (WU ET AL) 11 MAY 2004 See for example claims 1-3 and SEQ ID Nos: 2, 9, 22.	1-9, 11, 12, 15, 16, 18-20, 22-24, 26-29, 31-33, 35-37, 39, 40 ----- 10, 13, 14, 17, 21, 25, 30, 34, 38

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